

Imported Case of Measles to Washington

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On August 22nd, the Washington State Department of Health confirmed a case of measles in a Pierce County resident who had recently returned from a trip to China for the purpose of adopting a child. Eleven families from the United States had traveled to China in mid-July. The case patient began to develop symptoms on the return flight on July 26th and first sought medical attention on July 29th with a hospitalization for three days. The case came to the attention of the Department of Health after another adoptive parent from the same travel group was diagnosed with measles in Missouri. The Washington resident was interviewed and reported the rash illness since returning from China. Testing for measles confirmed a recent measles infection. Based on the timing of clinical symptoms, the Washington resident was likely contagious on flights from China through Los Angeles to Seattle, during three outpatient medical visits. and when hospitalized. A public health alert was posted soon after measles was confirmed. No subsequent cases have been identified among persons exposed to the Washington resident. However, an additional adoptive parent from California traveling with this group had a rash illness that was subsequently confirmed as measles.

A similar international episode involving multiple states including Washington occurred in 2004, when several families from the United States traveled to China to adopt children. In that outbreak, measles case patients were the adopted Chinese children themselves, and not the adoptive parents. Because most of the U.S. population has been appropriately vaccinated, there was only one additional case of measles in a person who had contact with one of these children after the group arrived in the United States.

Disease Symptoms and Course

Measles is an acute viral disease that begins with a fever, conjunctivitis, cough, coryza, and pathognomonic white or blue spots on the buccal mucosa (Koplik spots). Around the third day of illness, when the Koplik spots are resolving, the patient develops a rash that starts on the face and quickly descends to the rest of the body. The rash generally lasts 4-7 days, and often results in desquamation. Complications from the disease can include diarrhea, otitis media, pneumonia, and encephalitis. Measles is highly contagious through airborne transmission, by droplet spread, or by direct contact with nasal or throat secretions of infected persons. Treatment is supportive.



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Measles Vaccination

Since the measles vaccination became widely available after initial licensure in 1963, the number of U.S. cases has significantly reduced. Most cases now are linked to importation from other countries, roughly half of these occurring in U.S. residents returning from visits abroad. During 2001-2005 there were 37-116 cases per year in the United States, with a case rate of 0-0.04/100,000 and 0-15 annual cases in Washington, with a case rate of 0-0.3/100,000. The measles vaccine currently in use in the United States is a live, attenuated virus that is available alone or in combination with live, attenuated mumps and rubella vaccines.

Though the timing of vaccination varies with age and circumstance (refer to the Centers for Disease Control and Prevention [CDC] website for more information at: http://www.cdc.gov/nip/default.htm), two doses of measles-containing vaccine are generally recommended to assure full immunity. The second dose should be separated from the first by at least 28 days. As a precaution, live, attenuated measles vaccine is not recommended for people who are pregnant, allergic to neomycin or gelatin, or otherwise immunocompromised, although adverse effects have not been documented in these groups. To be considered immune to measles, a person should have at least one of the following:

- documentation of physician-diagnosed measles
- laboratory evidence of measles immunity
- birth before 1957
- documentation of receipt of two doses of live measles vaccine at the appropriate ages and time intervals

International Adoptions and Measles

Adoptive medicine is an emerging subspecialty of Pediatrics and particularly important to the area of vaccine preventable diseases such as measles. Not only is there a concern that children may not be properly immunized in their countries of origin prior to adoption, there is also the concern that U.S. born parents may not have been properly immunized before traveling for the purpose of adoption to countries where many vaccine preventable diseases are still endemic.

According to practitioners in the field, although the U.S. Department of State has requirements for immunizations for the international adoption of children ages ten years and older, the education that most adoptive parents receive regarding their own medical preparation prior to travel can vary greatly. There is currently no centralized licensing body that regulates international adoption agencies in the United States, and therefore, no requirements for the type or extent of medical education given to prospective parents prior to travel for adoption of children from foreign countries. The education for this target population can vary greatly depending on which adoption agency they use.

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Standardizing International Guidelines

There is, however, hope for the future. The American Academy of Pediatrics Section on Adoption and Foster Care, a group of physicians specializing in adoption and foster care medicine, is working closely with adoption agencies to have more input on the quality of education that adoptive parents receive. Many agencies that place children from overseas are members of the Joint Council for International Children's Services (JCICS), which has established guidelines and standards to the adoption process for its member organizations and works closely with adoption agencies to standardize the information shared with families seeking to adopt from other countries. In addition, the U.S. Department of State is coming closer to ratifying the Hague Adoption Convention, a treaty that sets internationally agreed upon standards for all inter-country adoptions. This treaty may one day provide an avenue for standardizing adoptive medical issues.

Vaccination Recommendations

In the interim, adoptive parents should obtain information specific to their own medical status. If immunity to measles cannot be demonstrated, vaccination should be obtained prior to traveling, preferably at least 2-3 weeks before departure. The CDC recommends consulting your physician 4-6 weeks prior to travel when vaccinations other than MMR are appropriate for a particular destination. Hepatitis A, hepatitis B, tetanus, pertussis, varicella, typhoid and polio are some other vaccines to consider, along with influenza.

Additional Resources

For additional measles information, refer to the following CDC websites:

Measles main page: http://www.cdc.gov/nip/diseases/measles/default.htm

Measles vaccine: http://www.cdc.gov/nip/vaccine/MMR/default.htm